

Work Order ID 150402

Wednesday, August 24, 2016 11:51:30 AM

150402

Page 1

Item ID: D119-796-251 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: AFT Crosstube Installation with Step (no hardware)
Start Date: 8/16/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 9/12/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: **DAS 21 9-89** Date: **AUG 24 2016** Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D119-796-251	D								

110 Document Control 0.00
110
DC Memo 0.00
Doc.Control -USB or Paperwork Photocopy bluefile and create labels as per PPP D119-796-251 chg 002

Label **DAS 21 9-89** **OCT 04 2016**

120 Pick Kit 0.00
120 Packaging
Packaging Memo 0.00

DAS 41 9-89
16-10-4

130 Crosstubes 0.00
130 Crosstubes
Crosstubes Memo 0.08
Crosstubes 1- Install step and clamp with the proper position per dwg D119-796-251
Torque all clamps to 50 IN-LBS max.

DAS 41 9-89
16-10-4

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER :			
Misidentified ☐		Past Due ☐					

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 *140* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo ***RE-CHECK TORQUE ON CLAMP AS PER DWG.*** DAS 9-89 ***VERIFY BY DAS 9-89 BATCH # TO MATCH W/O 15040238 ***VERIFY BY 9-89 PART # TO MATCH W/O 150402	0.00 0.00				1			DAS 38 9-89 OCT 05 2016
150 *150* Packaging Packaging Packaging	Packaging Memo Identify and pack for shipping as per PPP D119-796-251 A41	0.00 0.00				1			DAS 41 9-89 16-10-5
160 *160* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.02							DAS 21 9-89 OCT 04 2016 VS 12/10/04 DAS 21 9-89 OCT 04 2016

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WORK ORDER NON-CONFORMANCE / UPDATE



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Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

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Page 1

Work Order ID: 150402

150402

Parent Item: D119-796-251

D119-796-251

Parent Item Name: AFT Crosstube Installation with Step (no hardware)

Start Date: 8/16/2016

Required Date: 9/12/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 14.09.09 NEW ISSUE DD VERF:JLM IPP REV:B
14.10.15 AS PER REV.A DD VERF:JLM IPP REV:C 14.11.19
AS PER REV.C DD VERF:JLM IPP REV:D 14.12.09 AS PER
REV.PC6 DD VERF:JLM IPP REV:E 15.02.11 AS PER REV D
JLM VERF:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D119-796-241		Manufactured	No				Each	1.0000		1			
✓ *D119-796-241*					150156				**	1	DAS 41 9-89	16-9-22	
AFT Crosstube Installation without Step (no hardware)													
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				FG				1					
					146580			1					
D5123-3		Manufactured	No				Each	100.0000		4			
✓ *D5123-3*									**		DAS 41 9-89	16-9-22	
Clamp Cushion													
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				LG054				12					
					147939			12					
				LG055				88					
					146879			28					
					148184			24					
					149113			36		4			
D5149-043		Manufactured	No				Each	8.0000		2			
✓ *D5149-043*									**		DAS 41 9-89	16-10-4	
Aft Step Base Assembly													
				<u>Location</u>	150306			<u>Loc Qty</u>	<u>Loc Code</u>	2			
				LG055				8					
					142738			6					
					149108			2					

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Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :							
Misidentified	☐	Past Due	☐								

Picklist Print

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Page 2

Work Order ID: 150402

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Parent Item: D119-796-251

D119-796-251

Parent Item Name: AFT Crosstube Installation with Step (no hardware)

Start Date: 8/16/2016

Required Date: 9/12/2016

Start Qty: 1.00

Required Qty: 1.00

MS21920-25

Purchased

No

Each

11.0000

4

✓ ***MS21920-25***

Clamp

DAS
41
9-89

16-9-22

4

Location

Loc Qty

Loc Code

FG

4

120920

2

m134987

2

LG050

7

m135444

7

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

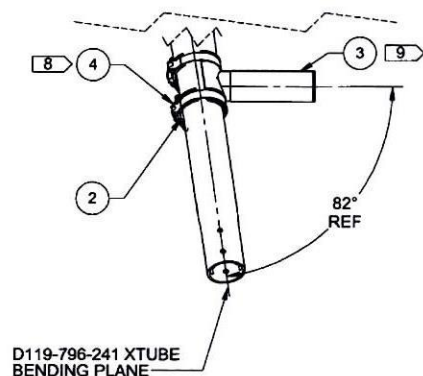
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

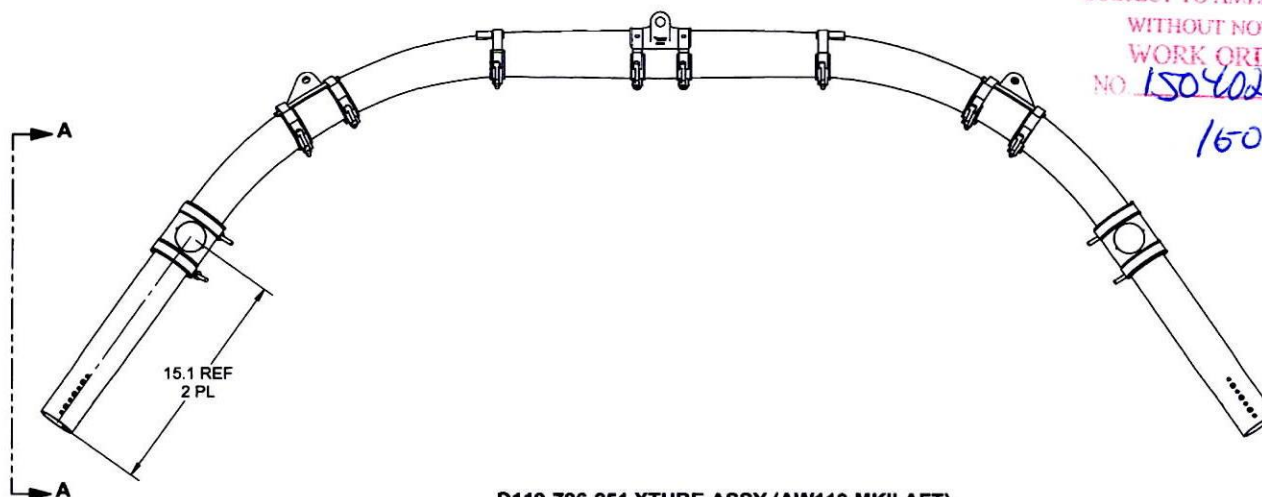
Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
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Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

ITEM	QTY	P/N	DESCRIPTION
	X	D119-796-251	XTUBE ASSY (AW119 MKII AFT)
1	1	D119-796-241	XTUBE ASSY (AW119 MKII AFT)
2	4	D5123-3	CUSHION
3	2	D5149-043	AFT STEP ASSY
4	4	MS21920-25	CLAMP

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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 150402 MJS
1608-29



SECTION A-A



D119-796-251 XTUBE ASSY (AW119 MKII AFT)

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 METHOD 6.5
- 7) WEIGHT: 29.9 lbs
- 8) TORQUE MS21920-25 CLAMPS TO 50 IN-LBS MAX
- 9) LOCATE STEP USING POST FITTING ON CROSSTUBE

RELEASED

2015 FEB 09

ECN 15-516

D	D5123-3 WAS D5123-9, MS21920-25 WAS -26, ADDED SECTION A-A	AP	15.01.19
C	RE-DESIGN STEP INSTALLATION	DB	14.11.24
B	D2274 RADIUS BLOCK WAS D5153-1, AN4C12A WAS AN4C10A	AP	14.10.04
A	NEW ISSUE	AP	14.09.03
REV.	DESCRIPTION	BY	DATE
DESIGN	AP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AP		
CHECKED	DB		
MFG. APPR.	DD		
APPROVED	HS		
DE APPR.	DS		
DATE	15.01.19	DRAWING NO. D119-796-251	
		REV. D SHEET 1 OF 1	
		TITLE XTUBE ASSY (AW119 MKII AFT) NTS	
		SCALE	
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